What is claimed is:

1. A working system of a metallic wire rod in a series of working processes of working a metallic wire rod (bar) in a coiled condition to a wire rod which is under predetermined conditions, comprising:

(1) the step of delivering the coiled wire rod at a constant speed thereby to bring the wire rod into a linear condition (a bar);

(2) the step of straightening the wire rod into a straight condition by causing the wire rod to pass through a straightening device in one or more places arranged in the direction of travel of the delivered wire rod;

(3) the step of causing the straightened wire rod to travel in a correct position, judging whether outside diameters and surface defects of the straightened wire rod are within preset prescribed allowances by detecting the outside diameters and surface defects, and outputting and storing results of the detection and judgment; and

(4) the step of cutting the wire rod in a traveling condition to preset predetermined lengths and delivering the cut wire rod to a mechanism for sorting the wire rod according to the quality of the wire rod;

wherein the working system has the sorting function of rejecting the delivered wire rod (bar) if the wire rod (bar) has defects outside the above tolerances for defects.

2. The working system of a metallic wire rod according to claim 1, wherein when the wire rod is caused to pass through a straightening device in one or more places during the travel of the wire rod, a flushing oil which is a mixed oil comprising a cutting oil and a lubricating oil is sprayed or applied to the wire rod.